SCIENCE & EDUCATION
Impact
Benefits from USDA/Land-Grant Partnership

Building a 2002 Farm Bill

Market-driven agriculture demands a supply of educated producers, a global trade environment and an environmental ethic.

The Federal Agricultural Improvement and Reform Act of 1996, popularly known as "Freedom to Farm," heralded a shift in federal farm policy. Farmers would trade a strict set of supply-control programs for a new era of market-driven cropping decisions, tempered with seven years of transition payments to help move the government out of farming.

Congress will consider a new Farm Bill in 2002, and experts predict more fine-tuning than final solutions. Some things haven't changed. Farmers need more skills in marketing and risk management. Policy-makers require the means to make better decisions. Congress and consumers want assurances that environmental programs in agriculture pay off. The USDA and Land-Grant university partnership works to help open international markets, promote win-win environmental programs and give farmers and others the tools they need to succeed.

Payoff

- **Un-risky business.** A **North Carolina A&T** program taught financial and risk management skills to more than 1,000 small-scale farmers facing economic hardships. Nearly 200 farmers learned how to apply for financial assistance, and 20 cooperators secured nearly $1.4 million in operating and equipment loans. More than 30 farmers reported they learned how to purchase crop insurance and use other risk management techniques. One first-time crop insurance participant was spared financial ruin when drought devastated his oat crop.

- **Exploiting exports.** Trade policy reforms in Tunisia and Morocco led to 1998 imports of 40 million bushels of American feed grains, up from 18.8 million bushels in 1993. The U.S. Feed Grains Council credits **Purdue** agricultural economists and expects imports to double again by 2008. Removing U.S.-Canadian trade barriers opened up markets for Montana feeder calves. **Montana State** experts estimate economic gains of $3 to $4 per hundredweight in transportation savings, with $4.32 million in additional revenue to Montana cattle producers.

RESEARCH, EXTENSION AND EDUCATION AT WORK

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- **Banking on carbon.** Capturing and storing atmospheric carbon in groundcover and crop residue may offer environmental and income benefits for producers. **Nebraska** researchers believe farmers could sell carbon credits to industry for an additional dollar per acre, certified by remote sensing technology. It could mean a new agricultural enterprise worth $27 million if implemented on just 25 percent of the nation's cropland. An **Ohio State** scientist has been working with commodity groups, federal agencies and the United Nations to promote crop-based carbon sequestration.

- **Flexing to flax.** Over-reliance on small grain crops has put North Dakota producers at risk for plant diseases and supply surpluses. **North Dakota State** Extension specialists have helped producers add to their cropping mixes and their bank accounts. Acreage for unconventional crops has increased in the last four years, including canola acreage by 344 percent; soybeans, 122 percent; flax, 167 percent; field peas, 264 percent; and lentils, 200 percent. Diversified cropping has led to an average of $11.40 per acre more, with an estimated increase of $185 million in 1999 gross income.

- **Wider margins.** Not everybody is ready for the computer revolution. **Maryland** faculty taught 700 agricultural producers financial management and basic computer skills. Better balance sheets, cash flow budgets and enterprise analyses should improve decision-making and profitability.

- **Marketing majors.** When farmers get only 18 cents out of every food dollar, marketing skills are crucial. Dairy farmers who learned about futures contracts from **Wisconsin** Extension specialists have eagerly adopted the risk management tools. One cooperative estimates the number of forward pricing contracts has quadrupled. A dozen marketing clubs with an average of 15 to 30 members have formed to continue the study of new marketing methods. A **Purdue** Extension educator has formed two marketing clubs for 72 producers in four counties. He estimates that members have boosted their combined incomes by $500,000 per year. One producer reports a $150,000 increase in sales over two years using options as hedging tools. Another using options to lock in corn prices estimated a market gain of $27,000.

- **Certifiably profitable.** Small-scale farmers have learned that earning organic certification can command premium prices for their produce. **Virginia State** experts have been helping growers meet the new USDA standards as well as teaching new methods of organic production and marketing. Thirty new farms were certified in 2000, bringing the total to 120 farms representing 6,483 acres.

- **Coping with smut**. Winter wheat growers in the northwestern United States have been denied Asian market access since 1972 because of a plant disease called smut. University researchers from **Utah State**, **Montana State**, **Oregon State**, **Idaho** and **Wyoming** worked with Chinese scientists to show that the disease would not threaten their wheat production, which led to a groundbreaking shipment of wheat to the People's Republic of China in 2000. Lifting the restriction could boost Montana wheat exports alone by several million metric tons.

- **Environmental outreach.** Urban-rural interactions have led to more interest in best management practices for crop and livestock operations. **Missouri** specialists helped one county's communities and surrounding corn farmers work together to meet drinking water quality standards. One project saved a community $50,000 per year without economically harming the corn farmers. **Louisiana State** specialists took the lead in publishing recommendations for specific commodity production ranging from poultry to sweet potatoes. Demand for the publications has prompted a second printing of rice and poultry publications, and the environmental ethic has been prized by the general public.

Cooperative State Research, Education, and Extension Service
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